

| [NODIS Library](#) | [Program Management\(8000s\)](#) | [Search](#) |



# NASA Procedural Requirements

**COMPLIANCE IS MANDATORY**

**NPR 8553.1B**

Effective Date:  
September 22, 2009

Expiration Date:  
September 22, 2014

[Printable Format \(PDF\)](#)

Request Notification of Change

(NASA Only)

**Subject: NASA Environmental Management System**

**Responsible Office: Environmental Management Division**

| [TOC](#) | [Preface](#) | [Chapter1](#) | [Chapter2](#) | [Chapter3](#) | [Chapter4](#) | [Chapter5](#) |  
[Chapter6](#) | [AppendixA](#) | [AppendixB](#) | [AppendixC](#) | [AppendixD](#) | [AppendixE](#) |  
[AppendixF](#) | [ALL](#) |

## Chapter 5. Checking and Corrective Action

### 5.1 Monitoring and Measurement

5.1.1 Purpose. To perform periodic monitoring and measurement of the EMS in order to evaluate the success of the EMS and NASA's attainment of its environmental compliance objectives.

- a. NASA Center Directors shall establish, implement, and maintain documented procedures to track, monitor, and measure the key characteristics of operations associated with EMS objectives and targets, as well as EMS high-priority environmental aspects.
- b. Center Directors may establish metrics to monitor and measure the key characteristics.
- c. Equipment used for monitoring shall be appropriately maintained and calibrated and calibration records shall be maintained.
- d. For Agency-level requirements, metrics shall be documented and reported in accordance with a schedule established by the NASA HQ Environmental Management Division.

### 5.2 Evaluation of Compliance

5.2.1 Purpose. To evaluate compliance with all applicable legal and other requirements.

- a. NASA Center Directors shall develop, implement, and maintain a procedure to

describe the methods used to evaluate compliance with applicable legal requirements and to ensure that all requirements identified in Section 3.2 of this NPR are evaluated for compliance.

b. The Center Directors shall also establish a method to ensure compliance with the other requirements to which the organization subscribes.

c. HQ Environmental Management Division-led EFRs shall be conducted every three years and include an environmental compliance evaluation.

d. The EFRs shall be performed in accordance with the requirements of NPD 1210.2, NASA Surveys, Audits, and Reviews Policy.

e. Center Directors shall support HQ Environmental Management Division-led EFRs as necessary to ensure that Center programs, projects, facilities, systems, and operations comply with all environmental requirements.

f. The Center managers shall conduct internal, annual environmental compliance evaluations during the years that HQ Environmental Management Division-led EFRs are not conducted, with each Center reviewing compliance with all requirements (as identified in Section 3.2) over a three-year period.

g. If the Center utilizes the HQ EFR for part of its internal compliance evaluation, the Center shall coordinate its audit schedule with the HQ EFR to ensure that all appropriate requirements and appropriate organizational elements are evaluated within the three-year period.

h. The Center managers shall ensure that the personnel performing compliance assurance are competent.

i. Records shall be maintained for the process utilized to ensure compliance with the legal and other requirements and for the results of the evaluations.

### **5.3 Nonconformity, Corrective Action, and Preventive Action**

5.3.1 Purpose. To establish, implement, and maintain a procedure for defining responsibility and authority and for identifying, handling, and investigating nonconformities.

a. NASA Center managers shall establish, implement, and maintain procedures to identify and track actual and potential nonconformities, corrective and preventive action, and necessary changes to be made to the EMS.

b. Preventive and corrective actions shall be made suitable for the magnitude of the environmental impact.

c. Action shall be taken to mitigate any environmental impacts caused by a nonconformity, to identify the cause, and to provide for both initiation and completion of corrective action to preclude recurrence.

d. The need for action to prevent nonconformities shall be evaluated and appropriate actions shall be designed to avoid their occurrence.

e. Results of corrective and preventive action shall be recorded.

f. The effectiveness of corrective and preventive action shall be reviewed.

## 5.4 Control of Records

5.4.1 Purpose. To establish, implement, and maintain procedures for the identification, storage, protection, retrieval, retention, and disposal records that demonstrate conformity to the requirements of the ISO 14001:2004 EMS Standard, this NPR, and EO 13423.

- a. Center management shall establish and maintain a records retention schedule for EMS records per NPR 1441.1, NASA Records Retention Schedules.
- b. Environmental records shall be legible, identifiable, and traceable to an activity, product, or service.
- c. Environmental records shall be identified, maintained, and stored in a manner consistent with NPR 1441.1, NASA Records Retention Schedules, that:
  - (1) Allows for their ready retrieval.
  - (2) Protects them from loss, damage, or deterioration.
  - (3) Provides for their appropriate disposal.
- d. A list of records that have been identified as pertaining to the EMS is provided in Appendix C.
- e. External compliance records are not subject to EMS record requirements but shall be both maintained according to external requirements and readily available.

## 5.5 Internal Audit

5.5.1 Purpose. To assess conformance to this NPR's requirements in the development, implementation, and maintenance of the EMS through the following:

- a. NASA HQ Environmental Management Division-led EFRs.
- b. ISO 14001:2004 EMS Certification Audits.
- c. Independent Declaration of Conformance assessments of Center EMSs.
- d. Center-led internal, annual EMS reviews.

5.5.1 The NASA Center Directors shall support HQ Environmental Management Division-led EFRs as necessary to ensure that Center programs, projects, facilities, systems, and operations comply with all environmental requirements and requirements of this NPR.

5.5.2 The Center Directors shall establish and maintain programs and procedures for internal annual EMS reviews that address the responsibilities and requirements for all aspects of the audit and the determination of audit criteria, scope, frequency, and methods.

5.5.3 The Center management shall conduct internal, annual EMS reviews, during the years that HQ Environmental Management Division-led EFRs are not conducted. When conducting their annual EMS reviews, the Centers may utilize the NASA EMS Checklist (see Appendix E).

5.5.4 At a minimum, in conducting the annual EMS reviews, management at each Center shall internally review all elements of its EMS for conformance with this NPR, as applicable to its internal suborganizations, over a three-year period.

5.5.5 If the Center utilizes the EMS audit portion of the HQ EFR for part of its internal audit process, the Center shall coordinate its audit schedule with the HQ EFR to ensure that all appropriate organizational elements are audited within the three-year period.

5.5.6 The HQ Environmental Management Division-led EFRs shall be conducted every three years.

5.5.7 Results of previous EFRs shall be considered by the HQ Environmental Management Division when conducting EFRs.

5.5.8 Where relevant, Center Directors shall consider results of previous HQ Environmental Management Division-led EFRs, independent Declaration of Conformance assessments, Center-led annual EMS reviews, and compliance evaluations with applicable regulations when conducting EMS reviews and evaluations of compliance with applicable environmental regulations.

5.5.9 Results of annual EMS reviews, Declaration of Conformance assessments, and compliance evaluations with applicable environmental regulations and EFRs shall be completely documented and provided to Center Senior Management.

5.5.10 HQ Environmental Management Division and Center auditing procedures shall be designed to address auditor competence, objectivity, and impartiality in the audit process.

| [TOC](#) | [Preface](#) | [Chapter1](#) | [Chapter2](#) | [Chapter3](#) | [Chapter4](#) |  
[Chapter5](#) | [Chapter6](#) | [AppendixA](#) | [AppendixB](#) | [AppendixC](#) |  
[AppendixD](#) | [AppendixE](#) | [AppendixF](#) | [ALL](#) |

| [NODIS Library](#) | [Program Management\(8000s\)](#) | [Search](#) |

## **DISTRIBUTION:** **NODIS**

---

### **This Document Is Uncontrolled When Printed.**

Check the NASA Online Directives Information System (NODIS) Library to Verify that this is the correct version before use: <http://nodis3.gsfc.nasa.gov>

---